of both hemispheres while subjects were performing verbal and spatial tasks. We expected verbal tasks to engage the left hemisphere predominantly, and spatial tasks to engage the right. During the verbal tasks the amount of alpha rhythm in the right hemisphere increased relative to the left, and during spatial tasks the alpha in the left hemisphere increased relative to the right. In general, the ratio of right hemisphere power to left hemisphere power was greater on left hemisphere tasks than in right. This ratio can be used as an index of the relative involvement of each hemisphere in a given situation.

We then used this index RH:LH power as a cue in a biofeedback study. Our results indicate that subjects can voluntarily regulate this index, and thus the amount of each hemisphere's involvement in a situation.

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Newer Approaches to Drug Abuse

THE MAJOR DEVELOPMENTS in the last year in treating drug abuse have centered around the increasing use of methadone therapy for heroin addiction. The increasing sophistication in the use of this controlled addiction has resulted in more careful selection of patients, control of the substance and the necessity of adjunctive group and vocational techniques for optimum effectiveness. Although other inpatient and day care group techniques are successful with selected patients, the use of methadone maintenance appears to diminish the complicating social and criminal problems associated with this addiction. In other areas of drug abuse there have been no major new developments. Attention has been mainly on the early detection, prevention of criminalization and expansion of the group and family techniques at all levels of the community.

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Behavior Therapy

BEHAVIOR THERAPY, behavior modification, behavioral engineering, and contingency management are terms used interchangeably in the psychological literature to refer to the application of principles of social learning theory to modify human behavior labeled as deviant. Behavior therapy is a new therapeutic technique effective in modifying behavior which is initiated, inhibited or maintained by the environment, and it is inexpensive.

Behavior therapy was suggested first in the 1950s simultaneously by work with schizophrenics and neurotics. The field has experienced an explosion of application in the past decade with half a dozen journals now established and literally thousands of research articles available. The application of behavior therapy implies a radical reconceptualization of psychopathology from a disease model to the understanding of deviant behavior as learned, and therefore subject to modification by new learning. The therapeutic strategy is closely tied to its research base by demanding careful description of target behaviors (for example, symptoms) in the baseline period, specification of the therapeutic intervention, observation of behavior change, and long term follow-up.

Behavior therapy is effective in increasing infrequently occurring, but desirable behavior, when immediate positive reinforcement is contingent to the patient's behavior; and in decreasing frequently occurring destructive or deviant behavior by pairing its occurrence with either noxious stimuli or by letting it go unreinforced. In addition to its application to individual patients, attention to the interactional and interpersonal context of behavior has led to such innovations as the "token economy" model employed to modify patterns on in-patient psychiatric wards, residential treatment facilities for juvenile delinquents, and with mental retardates. Behavior

therapy is frequently the treatment of choice in the management of the disruptive child in the classroom, or in the family. It is used extensively in special education classes.

The technique is inexpensive because the principles of social learning theory can be taught to the full range of mental health professionals and paraprofessionals. More importantly, simple programmed texts have been developed for those individuals who have maximum influence over the social and environmental contingencies of children, namely, their parents, teachers and peers.

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Genetics of Human Violence

AGGRESSION AND VIOLENCE have become center issues in our society. Suicide, homicide, assaults, racial conflicts, war, atomic destruction and genocide are but a few of the topics that now demand serious professional attention. Certain statistics help focus the problem: In 1967, someone was shot to death in the U.S.A. every 25 minutes and guns were involved in some way in the deaths of 21,000 civilians. Two drugs associated with violent acts are alcohol and the amphetamines. In a review of television programming six weeks after Robert Kennedy was assassinated, the following was observed: In 85½ hours of programming in prime evening hours and on Saturday morning, 84 killings were observed. The most violent hours of television were between 7:30 and 9 p.m. During that time, 26.7 million children between ages 2 and 17 were watching television. Certain researchers now feel they have demonstrated that television definitely influences the behavior of children.

Much research is currently being conducted into these complex areas. One of the most interesting findings is that man and the European Brown rat are the only known species that engage in species-destructive behavior. Konrad Lorenz has developed a theory which may explain this peculiar and species-endangering activity. In a cross cultural study of homicide, the availability of firearms is directly correlated with the incidence of homicidal deaths.

Many of these findings are of specific use to physicians, psychiatrists, police, educators and penologists.

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Short Versus Long Hospital Treatment of Schizophrenia

DESPITE THE FACT that there have been no controlled studies of the relative effectiveness of short-term and long-term hospital treatment of schizophrenia, community resources have primarily been allocated to short-term treatment. We have recently set up the first controlled study to measure the relative effectiveness of these two treatment strategies by randomly assigning each of 130 patients into either short treatment or long treatment and using a fixed phenothiazine dosage regimen. Short treatment is defined as 21 to 28 days, long treatment as 90 to 210 days.

Short-term strategy focuses around crisis intervention and immediate reestablishment of "community support systems." Long-term intervention involves phenothiazine control, greater flexibility in terms of diagnosis and management, psychotherapeutic exploration of precipitants that caused hospitalization, rehabilitation and extensive discharge planning. Both in-hospital and post-hospital treatment are evaluated by blind raters.

The follow-up period is limited to two years, because it is felt that "washing-out" of independent variable occurs at that time. It is hoped